Challenge TB – Call to Action for A TB-Free India

Annual Report

(Oct. 1, 2014 – Sept. 30, 2015)

October 30, 2015

Cover photo: Mr. Ratan Tata, Mr. Amitabh Bachchan and Ambassador Richard Verma (Left to right) signed the Pledge for a TB-Free India. Photo Credit: The Union South-East Asia Office (USEA)

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List of Abbreviations and Acronyms

ACF	Active case-finding
AFB	Acid-Fast Bacteria
AHPI	Association of Healthcare Providers (India)
ART	Antiretroviral Therapy
ASI	Association of Surgeons of India
AYUSH	Department of Ayurveda, Yoga and Naturopathy, Unani, Siddha and Homoeopathy, Ministry of Health and Family Welfare
BAL	Broncho-alveolar Lavage
BMGF	Bill and Melinda Gates Foundation
C2A	Call to Action for a TB-Free India
CBNAAT	Cartridge Based Nucleic Acid Amplification Testing (GeneXpert)
CDC	US Centers for Disease Control and Prevention
CEO	Chief Executive Officer
CETI	Collaboration for Elimination of TB
CII	Confederation of Indian Industries
CME	Continuing Medical Education
CSF	Cerebrospinal Fluid (CSF) analysis
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
CTA	Central Tibetan Authority
CTB	Challenge TB
CTD	Central TB Division, MoHFW
DDG	Deputy Director General
DGHS	Director General of Health Services
DMC	Designated Microscopy Center
DNP +	Delhi Network of Positive People
DOH	Department of Health
DOT	Directly Observed Therapy
DOTS	Directly Observed Therapy, Short course
FICCI	Federation of Indian Chamber of Commerce and Industries
FIND	Foundation for Innovative New Diagnostics
FNAC	Fine Needle Aspiration Cytology
FOGSI	Federation of Obstetricians & Gynecologists of India
GCTA	Global Coalition of TB Activists
HIV	Human Immunodeficiency Virus
IAMM	Indian Association of Medical Microbiologists
IAP	Indian Academy of Pediatrics
IC	Infection Control
ICMR	Indian Council for Medical Research
IEC	Information Education and Communication
IIHMR	Indian Institute of Health and Medical Research
IMA	Indian Medical Association
INP+	Indian Network for People Living with HIV/AIDS
IPA	Indian Pharmaceutical Association
JNU	Jawaharlal Nehru University
JS	Joint Secretary
KNCV	KNCV Tuberculosis Foundation
L&T	Larsen & Toubro
LoI	Letter of Intent

LTBI	Latent TB Infection
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MDR-TB	Multidrug-resistant Tuberculosis
MoCA	Ministry of Corporate Affairs
MoHFW	Ministry of Health and Family Welfare
MoL	Ministry of Labor
MoR	Ministry of Railways
MoSJE	Ministry of Social Justice and Empowerment
MoU	Memorandum of Understanding
NCCP	National College of Chest Physicians
NGO	Non-Governmental Organizations
NIRT	National Institute for Research in Tuberculosis
NITRD	National Institute of Tuberculosis and Respiratory Diseases
NTI	National Tuberculosis Institute
NYK	Nehru Yuva Kendra
OPD	Out Patient Department
PEPFAR	President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV
PMU	Project Management Unit
PPM	Public Private Mix
PSU	Public Sector Unit
PTCC	Partnership for TB Care and Control
RIF	Rifampicin
RNTCP	Revised National Tuberculosis Control Program
RSSDI	Research Society for Study of Diabetes in India
SHG	Self Help Group
SOP	Standard Operating Procedures
STCI	Standards for TB Care and Control in India
TAI	TB Association of India
TB	Tuberculosis
TBAI	TB Association of India
TCI	Transport Corporation of India
TISS	Tata Institute for Social Sciences
TOT	Training of Trainers
The Union	The International Union against TB and Lung Diseases
USAID	United States Agency for International Development
USEA	The Union South East Asia Office
VSO	Voluntary Services Overseas
WHO	World Health Organization
XDR-TB	Extensively drug-resistant Tuberculosis
Xpert	GeneXpert MTB/RIF

1. Executive Summary

Challenge TB is the flagship global mechanism for implementing the United States Agency for International Development's (USAID) TB strategy awarded to a coalition of nine partners with KNCV as the prime recipient. The International Union Against Tuberculosis and Lung Disease (The Union) has been tasked to lead the Challenge TB (CTB) project in India. Main components of the project in 2014 are the Call to Action for a TB-Free India - an advocacy communication agenda to build political will and leadership and mobilize resources for a TB-Free India, implemented by The Union; an assessment of the TB care and management services in Tibetan settlements in India to be conducted by The Union; and an intervention to improve quality of TB diagnosis among children in four cities, implemented by FIND. The obligated amount for Challenge TB (CTB) India is USD 5.1 million for two years.

1.1 Call to Action for a TB-Free India

The Call to Action for a TB-Free India was designed to mobilize a wide range of stakeholders to build political will and leadership to end TB in India and to increase the visibility for TB through a Call to Action campaign.

Within the first year of implementation, the project was able to secure the support of the Government of India under whose stewardship the project is now being implemented. In addition, the project has the backing of influential leaders across different sectors including the US Ambassador to India, Mr. Richard Verma; renowned superstar of Indian cinema, Mr. Amitabh Bachchan who came on board as a patient advocate; Mr. Ratan Tata, Chairman Tata Trusts who joined as a corporate champion; Dr K. K. Aggarwal, Honorary Secretary General of the Indian Medical Association as private health sector champion ; and well-known cardiologist and corporate leader Dr Naresh Trehan, Founder of Medanta Medicity who has pledged support for a TB-Free India.

The project kicked off with a high-profile launch by Shri J.P. Nadda, Honourable Union Minister of Health and Family Welfare (MoHFW), Government of India on April 23, 2015 at New Delhi. The launch was attended by over 250 participants, including senior officials of the MoHFW, USAID, WHO, the Global Fund, Bill & Melinda Gates Foundation, US Centers for Disease Control and Prevention (CDC), Stop TB Partnership, World Bank as well as key national associations, non-governmental organizations (NGOs), patient advocates, eminent journalists, leaders and experts on tuberculosis. All guests expressed their support to the Call to Action by signing on the 'Wall of Commitment'. The launch received a total of 70 plus media articles in national and international media and established the Government's commitment and leadership in leading the Call to Action and engaging with multiple stakeholders. This event kick-started a series of engagements aimed at bringing all the key stakeholders together for a high-visibility Call to Action Summit in March 2016.

CTB organized a consultation attended by representatives from 46 civil society organizations working on TB prevention and care who met in New Delhi on August 24, 2015 to discuss the steps necessary to achieve a TB-Free India and the vital role of civil society in this effort. As a result of the consultation, a

platform for engagement of civil society with the government was created and the need for a forum for patient voices and support was tabled.

To bring the corporate sector on board for TB, "The Mumbai Dialogue towards a TB-Free India" was convened by the U.S. Ambassador to India, Mr. Richard Verma, along with Bollywood actor Mr. Amitabh Bachchan and Chairman of Sir Ratan Tata Trusts, Mr. Ratan Tata on September 10, 2015 in Mumbai. The Dialogue called on corporate leaders to support and contribute to the Government of India's efforts to end TB in India. Senior representatives of companies, foundations and trusts were present. The corporate dialogue was followed by a press event where the three dignitaries addressed the media. Mr. Bachchan shared his own experience as a TB patient and Mr. Tata appealed to corporates to come forward and join the campaign for a TB-Free India.

Challenge TB engaged with the Indian Medical Association (IMA) and the TB Association of India (TAI) to jointly organize a national consultation with national professional medical and allied associations to effectively engage them and align their actions with the National TB Programme. Thirty national professional medical associations attended this consultation and deliberated on the need for a wide endorsement of the Standards for TB Care in India (STCI) and its dissemination. As a result, IMA spearheading development of the IMA guidelines for TB prevention and care aligned with the STCI, which will be endorsed and adopted by various national associations and disseminated to members of IMA and other associations who are working mostly in the private sector.

The project's goal is to advocate the cause of TB related issues with multiple stakeholders including government. These events are the first step in this direction and concrete results in the form of formal commitments or agreements are expected in the coming year.

In addition, CTB was successful in building visibility of TB and related issues with more than 150 articles in media (national and international). Mr Amitabh Bachchan also tweeted and posted on Facebook; the post received 73,948 likes and 1475 shares. In addition, a twitter handle @ForTBFreeIndia was launched which received tweets from Mr. Bachchan, Mr. Tata and Ambassador Richard Verma for a TB-Free India Campaign

1.2 Accelerate access to quality TB diagnosis for pediatric cases in four major cities in India

FIND is implementing a project to accelerate access to quality TB diagnosis for pediatric cases in four major cities in India viz., Delhi, Hyderabad, Chennai and Kolkata, where upfront Xpert testing is offered to all types of pediatric presumptive TB and DR-TB cases. The major objectives were to generate and disseminate a larger evidence base on testing of extra-pulmonary specimens, accelerate involvement of different kinds of healthcare institutions (both public and private) through advocacy and sensitization and to demonstrate increased notification of bacteriologically confirmed pediatric TB cases under Revised National Tuberculosis Control Program (RNTCP). Following are the key achievements of the project for current reporting period (1st October 2014 to 30th September 2015):

- The total number of linked facilities increased from 156 to 272 during the period Sept 2014 to Sept

2015;

- A total of 15,347 pediatric patients with presumed TB were provided access to quality diagnostic strategy i.e. upfront access to Xpert testing across four laboratories by utilizing a network of 272 referral facilities;
- The monthly testing increased from 1,000 in the beginning of reporting period to 1,700 by end of September 2015 presumed patients /month. This 70% increase highlighted the gains in the number of patients being reached and getting benefited with free testing under the project;
- A major shift in types of specimens tested on Xpert was reported. For 15,347 patients with presumed TB, a total 17,177 specimens were tested, of which 10,782 (62.8%) were non-sputum specimens whereas 6,395 (37.2%) were sputum specimens. This shift suggests that more providers were collecting and testing alternate specimen types over sputum for TB diagnosis;
- Xpert performance remained unaffected, with more than 16,949 / 17, 177 (98.6%) of the presumed patients receiving valid test results on Xpert MTB/RIF across all the sites;
- In spite of the increased number of both patients and specimens, the diagnostic and reporting turnaround time remained unaffected. Overall, 97.8% (15,016/15,347) of the specimens were transported on the day of collection, and 96% got Xpert test results within one day of sample receipt;
- By offering upfront Xpert testing to all presumptive TB patients (15,347), a total of 1,253 (8.2%) TB cases were detected of which 104 (8.3%) were diagnosed with rifampicin resistance. Of the total presumptive cases tested, 162 (1.1%) children were DR-TB suspects, of which 39 (24%) were diagnosed with rifampicin-resistant TB, while the remaining 65 were diagnosed among newly 1152 detected TB cases. All the Rif-resistant results were subjected to reconfirmation by Line Probe Assays;
- Overall Xpert MTB/RIF positivity was found to be 8.2% (1,253/15,347) as compared with 2.5% (378/15,347) on smear microscopy. While the positivity varied between different specimens, higher positivity was observed in broncho-alveolar lavage, pus/fine needle aspirate cytology, gastric aspirate, and cerebrospinal fluid.
- At the time of report compilation, of the total 1,253 Xpert MTB/RIF positive cases, information/ confirmation of treatment initiation (i.e. number of TB and DR-TB cases initiated on treatment) for 1,029 (82.1%) was available.

1.3 Assessment of the existing TB services among the Tibetan communities to inform establishment of systems that ensure early diagnosis and treatment

Tuberculosis continues to be one of the biggest public health challenges among Tibetan refugees and the leading cause of death due to infectious disease. TB incidence in Tibetan refugees is substantially higher than the local native host population. Considering an extremely high average annual TB incidence in the Tibetan populations, CTB conducted an assessment of the existing TB services among the Tibetan communities to inform establishment of systems that ensure early diagnosis and treatment. In the first leg of the assessment, CTB completed assessment of three sites (Dharamshala, Bir and Dehradun) in north India; two sites in the south (Mundgod and Byallakuppe) will be assessed in Year 2 of the project.

2. Introduction

Despite an extensive Revised National TB Control Program (RNTCP), with nation-wide coverage being in place for nearly a decade, India continues to bear a high burden of TB - an estimated 2.1 million incident cases and 278,000 TB deaths each year. Additionally, around 61,000 cases of TB among notified pulmonary TB cases are estimated to have multidrug-resistant TB (MDR-TB) each year (WHO Global TB Report 2014). The National Strategic Plan of the RNTCP (2012-2017) lays out the strategies towards achievement of the long-term vision of a "TB free India", with an overall objective to ensure universal access to quality assured diagnosis and treatment for all TB cases in the community.

Challenge TB is the flagship global mechanism for implementing the United States Agency for International Development's TB strategy as well as contributing to TB-HIV activities under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). USAID awarded the Challenge TB project to a coalition of nine partners with KNCV as the prime recipient in September 2014. The Union is the lead partner for Challenge TB in India; other collaborating partners include KNCV, which provides technical assistance, and FIND, which implements the pediatric TB project. The obligated amount for Challenge TB India is USD 5.1 million, which includes USD 4.6 million for the Call to Action for Year 1 and Year 2, and USD 500,000 for the pediatric TB project for Year 1.

Challenge TB (CTB) seeks to contribute to TB control efforts in India through a Call to Action for a TB-Free India campaign and targeted technical assistance. Main components of the project in Year 1 were the Call to Action for a TB-Free India - an advocacy communication agenda to build political will and leadership and mobilize resources for a TB-Free India at the national level, implemented by The Union; and an intervention to improve quality of TB diagnosis among children in four cities, implemented by FIND.

The goal of the Call to Action is two-fold:

1. Mobilize a wide range of stakeholders to demand and sustain high-level domestic commitment to end TB in India; and
2. Tap the energy and influence of key stakeholders to drive political, administrative, and technical solutions to address specific barriers affecting TB control in India.

Wider engagement of stakeholders and increased visibility of TB are expected results of the Call to Action campaign. The stakeholders that have been identified are shown in the diagram on the following page.

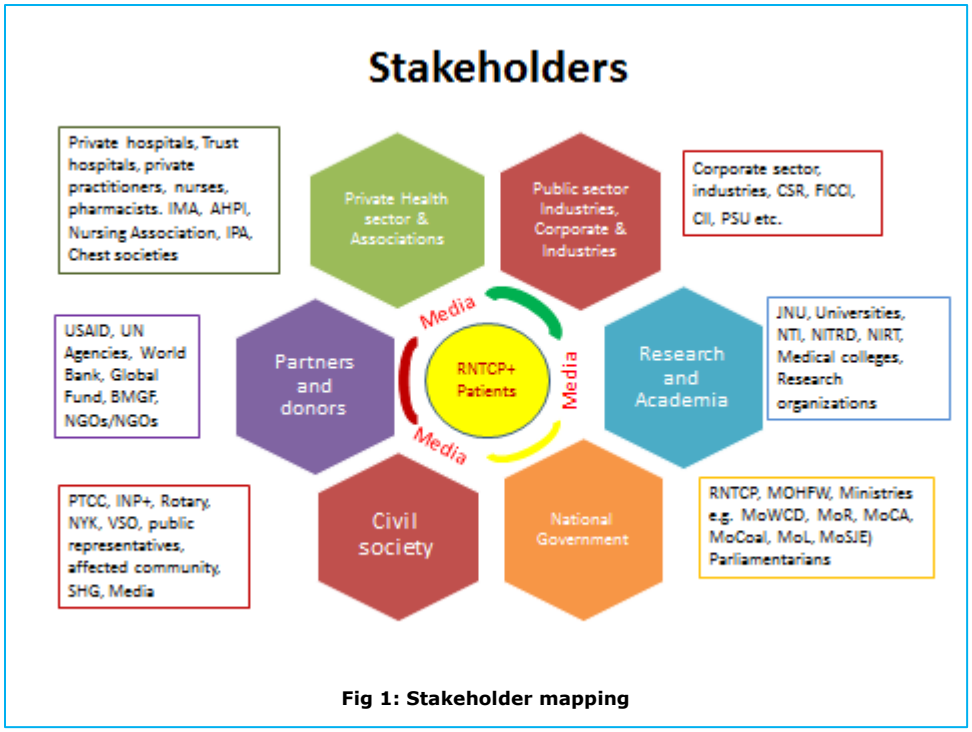

Fig 1: Stakeholder mapping

In Year 1, CTB established a Secretariat housed at The Union, South-East Asia office in New Delhi. A sub-contract agreement was signed with FIND for implementing the pediatric TB project. Achievements of the project are detailed in Section 3.

Building on the progress made in Year 1, the first phase of the Call to Action campaign will culminate with a two-day, high-profile Call to Action Summit in March 2016. The Summit will be designed to bring focused national (and international) attention to the challenge of TB and to draw commitments by key sector stakeholders to support the actions needed to end TB in India, in terms of well-defined political, administrative, technical, and financial actions. Thereafter, relationships will be nurtured and commitments made to produce concrete actions, address previously mapped needs, and maintain the momentum generated as a result of Call to Action campaign.

3. Country Achievements by Objective/Sub-Objective

Objective 1. Improved Access

Sub-objective 1. Enabling environment

Activity: Conduct an assessment of the existing TB services among the Tibetan communities to inform establishment of systems that ensure early diagnosis and treatment

Tuberculosis continues to be one of the biggest public health challenges among Tibetan refugees and the leading cause of death due to infectious disease. TB incidence in Tibetan refugees is substantially higher than the local native host population. In the year 1994-1996, the Tibetan Voluntary Health Association reported an extremely high average annual TB incidence of 835/100,000, while in 2010 it was reported as 431/100,000 in the Tibetan populations. The incidence of MDR-TB has is also very high in this group. In 2010, the incidence of multidrug-resistant TB among the Tibetan population in India was reported as 69/100,000. According to a field survey jointly conducted by Tibetan Voluntary Health Association and Delek Hospital, 14.5% of new TB cases and 32.4% of the retreatment TB cases had MDR-TB.

Currently, there are about 94,000 Tibetan refugees living in settlements across the country. The largest of these settlements include Dharamshala, Dekyiling, Ladakh, Mundgod and Byallakuppe.

CTB team conducted scoping visits to a Tibetan settlement in Delhi and at Dharamshala from 20-22 May 2015 to understand the overall administration of the exile settlements in India with particular focus on the organization and services available through the Tibetan Department of Health. Taking into account that nearly 53% of their population especially the economically productive reside in congregate settings such as schools and monasteries and accounted for the highest incidence of TB, the team not only interviewed staff from the Central Tibetan Authority (CTA), Department of Health (DoH), and various health facilities under Department of Health but also inmates and health staff of residential schools and a monastery. Based on the information gathered, the protocols and questionnaires were increased in scope to include these populations for the assessment.

Thereafter, assessment was done in three sites (Dharamshala, Bir and Dehradun) to understand the existing health system of the Tibetan Department of Health (a department of the autonomous Central Tibetan Administration in Dharamshala), the current TB patient referral system, recording and reporting channels and linkages between the health facilities of the Tibetan Department of Health, the local private sector, traditional medical practitioners, and RNTCP.

The original plan was to do a quick assessment over 2-3 weeks but during consultations with concerned stakeholders; it was suggested to widen the scope in terms of information gathered and the number of sites visited. Because the three-member staff assigned this task are also leading other activities with competing priorities, this activity was delayed and it was decided to limit the visits to the three sites already visited by September 2015.

However, the Tibetan Department of Health through the Tibet Fund has requested The Union and USAID India to cover two additional sites in South India (Mundgod and Byallakuppe). As discussed and agreed with USAID, this will be conducted in Year 2 of the project.

As agreed with the Tibetan Department of Health, the findings of the assessment will be shared with Central TB Division, MoHFW and USAID for further planning and to support implementation of the recommendations. The final report will be disseminated in public domain only after the approval of the Tibetan Department of Health.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y1	Y1
1.1.5	Assessment report: Availability of TB services in Tibetan settlements in India		N/A	Final Report	Not Met (due to the increased scope of work, will be completed in Y2)

Sub-objective 2. Comprehensive, high quality diagnostics

Activity: Strengthen established access to improved diagnosis for children (FIND)

FIND is implementing a project to accelerate access to quality TB diagnosis for pediatric cases in four major cities in India, namely Chennai, Delhi, Hyderabad and Kolkata where upfront Xpert testing is offered to all types of pediatric presumptive TB and DR-TB cases. The major objectives were to generate and disseminate a larger evidence base on testing of extra-pulmonary specimens, accelerate involvement of different kinds of healthcare institutions (both public and private) through advocacy and sensitization and to demonstrate increased notification of bacteriologically confirmed pediatric TB cases under RNTCP.

Four high throughput Xpert laboratories were established within existing RNTCP labs for examination of pediatric specimens, such as gastric lavage, broncho-alveolar lavage, induced sputum, lymph node aspirates, etc. using Xpert MTB/RIF. Referral linkages were established with major public and private hospitals to ensure adequate capacity to cover the entire project area. Rapid specimen transport mechanisms were established with the potential referral hospitals/institutes/facilities within all the four project cities.

Project has reported overall improvement in bacteriologically confirmed pediatric TB cases, as well as detection of significant number of rifampicin resistant TB cases in children. The project model has demonstrated the feasibility of rapidly rolling out upfront Xpert testing through a single high capacity laboratory exclusively for pediatric population in urban areas. It has also demonstrated great potential for targeted PPM activity to reach out to large numbers of pediatric population in a given area. Wide geographical coverage under the project was achieved through rapid specimen transportation linkages

with participating health facilities resulting with most specimens being transported on the same day of collection and results being provided on the day of specimen collection. This implementation design provides a feasible methodology of providing upfront access to Xpert, considering that high cost of equipment, limits this test's applicability for point of care usage covering large geographic areas. Under the project, Xpert performance in TB detection was found to be excellent among various specimens tested as majority of specimen has yielded valid results.

Following are the key achievements of the project for current reporting period (1st October 2014 to 30th September 2015):

- The total number of linked facilities increased from 156 to 272 during the period Sept 2014 to Sept 2015. This resulted in an increased number of presumptive pediatric TB patients being examined using Xpert test.
- A total of 15,347 pediatric patients with presumed TB were provided access to quality diagnostic strategy i.e. upfront access to Xpert testing across four laboratories by utilizing the network of 272 referral facilities. In comparison, only 6,732 presumptive pediatric TB cases were tested during April to Sept 2014 (through another funding mechanism).
- The monthly testing increased from 1,000 to 1,700 presumed patients /month. This 70% increase highlighted the gains in the number of patients being reached and getting benefited with free testing under the project.
- A major shift in types of specimens tested on Xpert was reported. For 15,347 patients with presumed TB, a total 17,177 specimens were tested, of which 10782 (62.8%) were non-sputum specimens whereas 6395 (37.2%) were sputum specimens. This shift suggests that more providers were collecting and testing alternate specimen types over sputum for TB diagnosis. Following table provides information on proportion of different type of specimen tested under the project:

Table 1: Type of specimens tested across all four sites (N= 17,177)

Specimen Type	Specimen Tested	Xpert MTB/RIF Positive	%	Total Rifampicin-Resistant Cases
Sputum/IS	6,395	531	8.3%	64
Gastric Aspirate/ Gastric Lavage	7,678	451	5.9%	34
CSF	1,302	85	6.5%	9
Pleural Fluid	555	17	3.1%	4
BAL	458	66	14.4%	3
Pus	239	99	41.4%	7
Lymph Node/ FNAC	216	72	33.3%	8
Ascitic Fluid	116	4	3.4%	0
Others*	218	35	16.1%	7
Total	**17,177**	**1,360**	**7.9%**	**136**

- Xpert performance remained unaffected, with more than 16,949 / 17, 177 (98.6%) of the presumed patients receiving valid test results on Xpert MTB/RIF across all the sites.
- In spite of the increased number of both patients and specimens, the diagnostic and reporting turnaround time was maintained by the project team. Overall, 97.8% (15,016/15,347) of the specimens were transported on the day of collection, and 96% got Xpert test results with in one day of sample receipt.
- By offering upfront Xpert testing to all presumptive TB patients (15,347), a total of 1,253 (8.2%) TB cases were detected of which 104 (8.3%) were diagnosed with rifampicin resistance.
- Overall Xpert MTB/RIF positivity was found to be 8.2% (1,253/15,347) as compared with 2.5% (378/15,347) on smear microscopy. While the positivity varied between different specimens, higher positivity was observed in broncho-alveolar lavage, pus/fine needle aspirate cytology, gastric aspirate, and cerebrospinal fluid.
- At the time of report compilation, of the total 1,253 Xpert MTB/RIF positive cases, information/ confirmation of treatment initiation (i.e. number of TB and DR-TB cases initiated on treatment) for 1,029 (82.1%) was available.

Intensified PPM for expanding project reach: Major focus was given to increasing private sector involvement in the project. To maximize private provider involvement, new activities were initiated. They included mapping of private sector providers, including both formal and informal sector, advocacy activities and distribution of project-related materials, one- to-one sensitization sessions and meetings with doctors, as well as sensitization workshops and Continuing Medical Education (CME) for larger audiences.

Mapping of private sector:

- During the first year of project, linkages were made only with prominent pediatric hospitals in the districts. Most of the providers approached and linked in the first year were from public health facilities including designated microscopy centers (DMCs) from the four project cities.
- Not all targeted providers (particularly private institutes, medical colleges and other hospitals) could be reached during the first year due to delays in receipt of funds. However, after getting approval for second year of the project, further mapping of public and private sector was initiated.
- The list of pediatricians and other private providers was obtained from IAP (Indian Academy of Pediatrics) and IMA (Indian Medical Association) bodies. Pharmacies and local medical shops were approached to reach out to the informal sector. Google maps and other web services were used to identify doctors in the given areas. Focus was also given to the areas of cities with most crowded and slum areas.
- During mapping, basic information including name of the doctor, hospital name, type of facility, contact number, email ID, postal address are being collected and more than 1,500 providers

have been mapped so far by these mechanisms across all four sites. The effort on identifying most providers in the city is an on-going activity and the list of mapped providers is dynamic.

Distribution of Information Education and Communication (IEC) materials: Project brochures and fliers have been developed and till date, 3000 copies have been distributed in four project towns through courier, by hand during one-to-one interaction and during sensitization meetings.

Fig. 2: Participants at sensitization workshop in Swasth Bhavan Kolkata, Photo by – Laboratory Coordinator, Mr. Abhijit, FIND

Fig. 3: Participants at sensitization workshop in in ENT Hospital, Hyderabad Photo by – Laboratory Coordinator, Ms. Pavani, FIND

Advocacy meetings/ Sensitization workshops: FIND prioritized individual visits to doctors based on monthly patient load. For providers who agreed to meet, a one-to-one meeting was carried out. During the meeting, providers were briefed regarding the benefits of the project and how they could participate. The modalities for specimen transportation and reporting mechanisms were also discussed. The objective of such meetings was to increase the number of providers engaged under the project. These meetings are mainly carried out by the field team (lab coordinators). Later on sensitization workshops were organised for larger groups. These workshops were facilitated by the project team including project manager and project coordinator. Disaggregated data on the different type of sessions and gender was not compiled, however prospectively we will be collecting this information for inclusion in the report. Four such sensitization meetings were organised; one in Kolkata and three in Hyderabad.

Kolkata Sensitization workshop: One day sensitization meeting was organised at Kolkata in July 2015. Faculty members of pediatric and chest departments from medical colleges, namely Kolkata National Medical College and Hospital, Nil Ratan Sarkar Medical College and Hospital, Kolkata Medical College and Hospital, private hospitals and IAP doctors were invited for the sensitization workshop. More than 70 providers were sensitized during the meeting. This workshop was facilitated by the project team and FIND staff from the Delhi office. After this meeting, more presumed TB patients were referred: 270 patients, including 50 from private facilities, were referred for investigations compared to 200 per month before the meeting.

Hyderabad Sensitization workshop: Three sensitization workshops were carried out in Hyderabad in the month of September 2015, attended by a total of 84 providers from three major hospitals and their associate hospitals.

Similar sensitization workshops are planned for year two of the project and will be done for all the providers who have been mapped. Mapping and advocacy are ongoing activities in the second year of the project.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y1	Result Y1
2.4.3	MTB positivity rate of Xpert test results	**Description:** This indicator measures MTB positivity rate of Xpert test results **Indicator Value:** Percent **Level:** National and Challenge TB geographic areas **Numerator:** Number of MTB positive samples **Denominator:** Total number of samples from suspected TB cases tested using Xpert test (excluding invalids, errors, no results).	7.61% (2014 -from four project sites)	>5%	**Xpert positivity - 7.9 % (1,360/17,177)** Overall Xpert positivity is 7.9% among various specimens tested across all the four sites.
2.4.4	Rifampicin resistance rate of Xpert test results	**Description:** This indicator measures rifampicin resistance rate of Xpert test results **Indicator Value:** Percent **Level:** National and Challenge TB geographic areas **Numerator:** Number of rifampicin resistant samples **Denominator:** Total number of samples from cases tested using Xpert test (excluding invalids, errors, no results).	11.95% (2014 -from four project sites)		**Rif resistant level - 8.3% (104/1,253)**
2.4.5	% unsuccessful Xpert tests	**Description:** This indicator measures proportion of unsuccessful Xpert tests **Indicator Value:** Percent **Level:** National and Challenge TB geographic		Less than 1%	**Failure rate – 1.3% (288/17,177)** Total 17,177 specimens were

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y1	Result Y1
		areas **Numerator:** Number of unsuccessful Xpert tests **Denominator:** Total number of Xpert tests.			tested and valid results were obtained for 16,949 (98.7%). Final failure rate of Xpert is 1.3% (228/17,177). Majority of the test results, which could not be resolved were not retested due to less quantity of EP specimens and difficulty in obtaining fresh second sample from the children.
2.4.8	# of patients getting diagnostic test with GeneXpert	**Description:** This indicator measures absolute number of suspects receiving Xpert test under the project **Indicator Value**: Absolute number **Level:** National and Challenge TB geographic areas **Numerator:** NA **Denominator:** NA		>10000	**> 15,000** Total 15,347 pediatric TB suspects were offered upfront Xpert test under the project during reporting period (1st October 2014 to 30th Sep 2015)
2.4.9	% of TB patients diagnosed using GeneXpert residing within project area, initiated on treatment	**Description**: This indicator measures proportion of cases initiated on treatment **Indicator Value:** Percentage **Level:** National and Challenge TB geographic areas **Numerator:** Number of TB and Rif resistant TB cases initiated on treatment during reporting period **Denominator:** Total number of TB and rif		>87%	**82.1%** During reporting period, total 1,253 bacteriologically confirmed TB cases were detected of whom 1,149 were rifampicin- sensitive and 104 were resistant to rifampicin. At the time of reporting, treatment information for

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y1	Result Y1
		resistant TB cases diagnosed under project during reporting period			82.1% (1,029/1,2 53) was available. Treatment information for 1,007/1,149 (87.6%) RIF-sensitive TB and 78/104 (75%) RIF-resistant TB cases was available. (Please refer to table in the end). Treatment information for 115 (9.2%) (108 RIF-sensitive and 7 RIF-resistant) patients was yet to be collected as majority of these cases were diagnosed during the last month (September 2015) of the reporting period.
2.4.10	# of referring health facilities linked per diagnostic centre	**Description:** This indicator measures proportion of referring facilities linked to the diagnostic lab **Indicator Value:** Percentage **Level:** National and Challenge TB geographic areas **Numerator:** increase in number of linked facilities during reporting period **Denominator:** number of linked facilities during baseline phase	156	>10% rise in baseline	**272 (74% increase)** At the beginning of the reporting period, there were 156 referral centers that were linked with four Xpert laboratories. By the end of the reporting period, we had 272 facilities linked to Xpert laboratories. This represented an increase of 74%.

Objective 3. Strengthened TB Platforms

Sub-objective 7. Political commitment and leadership

CALL TO ACTION FOR A TB-FREE INDIA (C2A)

In Year 1, the mandate for C2A was to setup structures for management of the TB-Free India campaign and to engage partners from civil society, corporates, private health sector, and media to join the campaign. In order to do so, a campaign secretariat was established in The Union to catalyze action on the TB-Free India Campaign. The Union South East Asia office completed Challenge TB (CTB) staff recruitment for the campaign secretariat comprising of a dynamic team with expertise in marketing and communications, advocacy and partnerships, monitoring and evaluation, management, TB technical experts, and led by a Project Director.

The Union (Secretariat) engaged with the Central TB Division, and brought on board the Joint Secretary, MoHFW and Director General, Health Services, MoHFW and the DDG TB to steer the C2A campaign. While the key decision makers on TB in government are fully engaged in C2A activities, a proposal for comprising a larger action group to steer the action forward is with the MoHFW. As a first, the project was able to engage renowned superstar of Indian cinema, Mr Amitabh Bachchan to come on board as a patient advocate. The project has also been successful in bringing Mr Ratan Tata, Chairman Tata Trusts as a corporate champion. Dr K K Aggarwal, Honorary Secretary General, Indian Medical Association (IMA) is on board as a champion from IMA and is leading IMA's efforts in endorsing 'Uniform Guidelines for Private Practitioners' on line of Standard for TB Care in India (STCI). The project has also engaged Dr Naresh Trehan, Founder Medanta Medicity from the corporate health care sector. Richard Verma, US Ambassador to India is supporting the initiative whole-heartedly. In the first year, the project has built visibility of TB with more than 150 articles in media (national and international).

Major activities in Year 1:

1. CTB launch by the Union Minister of Health and Family Welfare, Shri J.P. Nadda, April 23, 2015, New Delhi:

Shri J.P. Nadda, Honorable Minister of Health & Family Welfare, Government of India, launched the Call to Action for a TB-Free India. The launch event had participation from international and national experts from all sectors, including donors, civil society, patients, private health sector, media, and corporate sector.

Fig. 4: Launch of Call to Action for a TB- Free India

The launch highlighted the goal of the Call to Action: increase visibility of TB and mobilize domestic resources and commitment to end TB in India. Members of WHO, Stop TB Partnership, Federation of Indian Chambers of Commerce and Industry (FICCI), Gates Foundation, World Bank, Center for Disease Control and Prevention (CDC), Global Fund, The Union, all came together to pledge support for a TB Free India.

2. CTB engagement with donors and implementers of major TB programs, August 4, 2015, N. Delhi

The Secretariat interacted with representatives from Donor and Partner agencies (USAID, Gates Foundation, CDC, Clinton Health Access Initiative (CHAI), Abt Associates, FIND, MSF, DNP+) to discuss the project plans and elicit their support for the Call To Action for a TB-Free India. Donors/ Partners provided feedback and came forward with suggestions, contacts and support for the Call to Action for a TB Free India.

3. CTB engagement with Bollywood star and legend Mr. Amitabh Bachchan, August 20, 2015, Mumbai

USAID and The Union met with Mr Amitabh Bachchan to ask him to join the efforts for a TB – Free India. As a first step, Mr Bachchan agreed to participate in the Mumbai Dialogue along with Ambassador Richard Verma, U.S. Ambassador to India and Mr. Ratan Tata, Chairman, Tata Trust to reach out to corporates and the media.

Fig. 5: Mr. Ratan Tata, Mr. Amitabh Bachchan & Ambassador Richard Verma signing the pledge
Photo credit: The Union South–East Asia Office

Mr. Bachchan expressed his willingness to support the campaign whole-heartedly in his personal capacity. He shared his experiences of being part of the Pulse-Polio Campaign and advised the project to develop a similar collaborative plan for a TB-Free India.

4. CTB engagement with civil society leaders, August 24, 2015, N. Delhi

A consultation with civil society organizations (CSOs) working in TB care and control was organized to align civil society with the TB-Free India campaign and provide feedback to Government on implementation challenges and patient perspectives.

Fig. 6: Spearheading Civil Society Action towards TB-Free India
Photo credit: The Union South–East Asia Office

Over 80 participants from 46 CSOs, attended the consultation and brought out concrete recommendations on what needs to be done for a TB Free India. The consultation provided a platform for NGOs to engage with CTD and JS, MOHFW and dialogue with them. The consultation report will summarize key recommendations and action points towards effective engagement of civil society in TB program in India.

5. CTB engagement with US Ambassador and Corporate Leaders, September 10, 2015, Mumbai

U.S. Ambassador to India, Mr Richard Verma, reached out to Shri Amitabh Bachchan, Shri Ratan Tata, Dr. Jagdish Prasad, DGHS, MoHFW, and Dr. Sunil D. Khaparde, Deputy Director General TB, in Mumbai to sensitize corporates and draw commitment for a TB-Free India.

Thirteen corporate leaders (CEOs and CSR Foundation Heads) attended the Mumbai Dialogue and pledged their support for a TB Free India. The corporate leaders represented BMGF, BASF, Lupin, L&T, Ericson, Swadesh Foundation, Narayana Health, Medanta, Outlook group, Zee group, Piramal Foundation, ICICI Foundation and TATA Trusts. The CTB team is engaged with these foundations/ corporates to ensure sustained commitment for CSR support.

6. CTB engagement of Rotary India, September 20, 2015, N. Delhi

The Union and USAID met members of the Rotary India National TB Control Committee on September 20, 2015 in New Delhi to present the Call to Action for a TB Free India campaign and request support from the Rotary to end TB in India in line with similar efforts previously made by Rotary in polio eradication in India.

Dr H. Papa, Rotary district coordinator for Chennai, Dr Salil Bhargava and Dr Manoj Jain (CETI – Collaboration for Elimination of TB) have expressed interest in collaborating for a TB Free Madhya Pradesh and Tamil Nadu and a MoU is in the process of development with 100 Rotary Clubs.

7. Engagement of IMA for a TB-Free India, September 29, 2015, N. Delhi

Fig. 7: Representatives from more than 30 Professional Medical Associations pledge support for a TB- Free India

CTB engaged IMA (the largest association of qualified medical practitioners in India) in the TB-Free India campaign to ensure that Standards for TB Care in India are adopted and endorsed by all association members and private health sector providers notify TB cases to the RNTCP.

More than 30 Professional Medical Associations - TB Association of India (TBAI), Federation of Obstetricians & Gynecologists of India (FOGSI), Association of Surgeons of India (ASI), Indian Academy of Pediatrics (IAP), Association of Physicians of India (API), Indian Society of Oncology, Indian Chest Society, National College of Chest Physicians (NCCP), Indian Fertility Society, Trained Nurses Association of India, Ayurveda Medical Association of India, Homeopathy Medical Association of India, SEAR Pharm Forum, Nursing Research Society of India; and Indian Association of Medical Microbiologists (IAMM) are now engaged in the campaign. As a result, IMA, FOGSI, IAP, Nurses Association, IAMM have expressed interest in adopting guidelines and disseminating it within their networks.

In order to access the top decision makers, CTB recently engaged Samhita, a consultancy agency with strategic connections and past expertise in CSR that provides linkages and advocacy platforms for corporate and CSR engagements. CTB is working with Samhita to develop a "Corporate Engagement Strategy Document".

A Letter of Intent (LOI) was signed with IMA to formalize partnership for TB-Free India. The Head of IMA , Dr KK Aggarwal is on board as a TB Champion and advocate and is actively pursuing the development of 'Guidelines for Private Health Sector' aligned with the Standards for TB Care in India (STCI). The IMA convened a meeting of technical experts on TB on September 16 at the IMA Headquarters to draft Guidelines for Private Sector based on STCI. The CTB team also met with the Research Society for Study of Diabetes in India (RSSDI), Indian Orthopedics Association, AYUSH (Indigenous Systems of Medicine), League of Givers.

Major health universities are on board to ensure research and academic interest in both clinical and social aspects of TB in India. CTB reached out to premier institutions such as Tata Institute of Social Sciences (TISS), Jawaharlal Nehru University (JNU) and Indian Institute of Health and Medical Research (IIHMR), and research institutes such as Indian Council for Medical Research (ICMR) to bring together

eminent national experts, researchers and academicians on TB. Letters of Intent identifying areas of collaborative work on TB research are in process with JNU, IIHMR and TISS.

TB Champions and Patients' Voices

The Call to Action for a TB Free India organized informal sessions with three patient advocates and champions to understand their perspectives on what needs to be done for a TB-Free India. These sessions were organized at the Union South East Asia Office and were attended by all Union Staff and consultants.

Hari Singh, TB- HIV advocate, May 27, 2015 : narrated his personal experience and the challenges of being a PLHIV and having experienced TB. He said, *"The HIV community is not dying from AIDS but from TB."* He talked about the need to educate and counsel TB-HIV patients and how this could be done by including the existing PLHIV networks. He requested that some monetary support and incentives be given to those interested to work in TB-HIV to support their endeavors.

Loon Gangte, representing DNP+ and a cured TB patient, July 30, 2015: shared his perspective of nurturing the network and his advocacy experience to ensure on-going access to affordable treatment in improving the lives of PLHIV. He emphasized that investing time and effort in building sound communities was imperative. Only then will the communities be enabled and empowered in true sense. He lamented that as compared to other public health programmes, TB is still lagging behind.

***Ms. Blessina Kumar, TB Activist, Chair, Global Coalition of TB Activists, May 29, 2015*:** shared her experience of doing advocacy for civil society engagement in TB at national and global level. She talked about the challenges one faces as an advocate and need for evidence-based advocacy.

Dr Bikramaditya Choudhury, Assistant Professor, Jawaharlal Nehru University, September 24, 2015 : Dr Choudhury shared his research on the sociological, political and ecological aspects of TB disease. Dr. Choudhury presented the history of TB in British India; the political and social implications therein, the present status of TB – environmental, ecological and social context determining the existence of transmission networks and the gaps in the health system to address the issues.

Amitabh Bachchan, Celebrity, September 10,2015: Mr Bachchan talked about his battle with the disease and how he would like to address others and make them aware of the fact the TB can happen to anyone. He addressed the media and a group of corporate leaders appealing them to come on board and take action for a TB-Free India.

Cured Patient Voices at the Private Health Sector consultation, September 29, 2015 : Four patient advocates (Tarannum, Salim, Fatima and Anil) talked about their experiences from diagnosis to treatment in private and public health sector at the private health sector consultation organized with IMA. Government and doctors from public and private health sector listened to the problems and barriers they faced while accessing TB care.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y1	Result Y1
7.2.3.	% of planned organisations represented in the project steering committee (at least 1 each from donor, private sector, civil society, technical agencies, professional associations)	**Description:** This indicator measures representation of different sectors in project steering committee **Indicator Value:** Percent **Level:** National **Numerator:** Number of planned organization having representatives in steering committee **Denominator:** Total number of organizations were approached to join in steering committee	0 (Oct 2014)	At least five different sectors represented in the PSC	Not met (This will not be project specific committee but a steering committee formed by MoHFW, GoI. MoHFW will proceed in due course following the official procedures for forming committees)
7.2.4	# media events/stories covering the campaign and the Call to Action Summit	**Description:** This indicator measures the visibility of the campaign and the buzz created for Call to Action Summit **Indicator Value:** Number **Level:** National	0 (Oct 2014)		165 This includes coverage by Electronic media: 8 Print media: 65, Magazine: 2, Online: 90
7.2.5	# of content/ materials developed and disseminated with Challenge TB support that are in line with the campaign strategy	**Description:** This indicator measures number of material developed for campaign under challenge TB **Indicator Value:** Number **Level:** National	0 (Oct 2014)		6 This includes: flier -4(CTB, Union at a glance, Corporate sector, Pvt Health sector dialogue) CTB –One pager -1 Message Map – TB context in India -1
7.2.6.	% of Call to Action Summit invitees who attend the summit	**Description:** This indicator measures number of people attended in the Call to Action Summit **Indicator Value:** Percent **Level:** National **Numerator:** Number of people attended the Call to Action Summit **Denominator:** Total number people were invited to attend Call to Action Summit	0 (Oct 2014)	>75%	Not Applicable as the Summit was deferred for Y2 (March 2016)

4. Challenge TB Support to Global Fund Implementation

Current Global Fund TB Grants

Table 2: Summary of the current Global Fund Grants till September 2015*

Name of grant, year signed & principal recipient(s) *(e.g., Tuberculosis NFM – 2014 - MoH)*	**Average Rating***	**Current Rating**	**Total Approved Amount**	**Total Disbursed to Date**	**Total expensed** *(if available)*
Providing universal access to DR-TB control and strengthening civil society involvement- **2011 -World Vision India**	B1	A2	$7.0 million	$5.8 million	
Providing universal access to DR-TB control and strengthening civil society involvement**- 2011- The Union**	A2	A2	$39.9 million	$26.9 million	
Consolidating and scaling up the Revised national tuberculosis control program **– 2011-Central TB Division**	B1	B1	$261.4 million	$259 million	

* *Global Fund website, accessed on 17 August 2015.*

In-country Global Fund status - key updates, current conditions, challenges and bottlenecks

India has submitted a joint TB-HIV concept note for funding under the Global Fund's New Funding Model to cover the period Oct 2015 to Dec 2017. This is already approved and grant documents are being finalized at this stage.

Challenge TB involvement in GF support/implementation, any actions taken during Year 1

Challenge TB is collaborating with Principal Recipients (The Union and World Vision) and Sub-Recipients of the TB grant in relation to civil society response and actions for a TB-Free India.

5. Challenge TB Success Story

Amitabh Bachchan, Megastar, Bollywood Icon engaged as a Patient advocate and TB Champion:

Mr. Amitabh Bachchan is the most popular Indian Bollywood star and an icon who has a huge following in India and globally (17.4 million Twitter followers currently). The Government of India honoured him with the Padma Shri in 1984, the Padma Bhushan in 2001 and the Padma Vibhushan in 2015 for his contributions to the arts. The Government of France honoured him with its highest civilian honour, Knight of the Legion of Honour, in 2007 for his exceptional career in the world of cinema and beyond.

The U. S Ambassador to India, Mr. Richard Verma wrote to Mr. Bachchan asking him to be a part of the TB-Free India Campaign. The CTB team then reached out to Mr. Bachchan with an engagement plan. Mr Bachchan has been a TB patient himself and has suffered from TB of the spine. He has also engaged with the Bombay Municipal Corporation on TB in the past and showed his willingness to be part of the National Call to Action for a TB Free India.

The CTB team briefed him on the stigma surrounding TB and the fact that TB can happen to anyone and is curable if diagnosed and treated. The team also told him about why TB needs political, administrative and public action especially in India, where the maximum numbers of cases of TB are present and a lot of it remains missing as it is not captured in the national program data, but remains in the private sector.

Mr Bachchan agreed to talk about his own battle with the disease and be a patient advocate for the TB Free India Campaign. He also, agreed to be part of the Mumbai Dialogue, organized by Challenge TB and appeal to both corporates and the media to take action on TB.

At The Mumbai Dialogue, Mr Bachchan said: *"My reason for joining this initiative is thus personal. As someone who had suffered from TB, I can tell you of the devastation this disease can cause to a person's life. It can often take months to be diagnosed. Even when the diagnosis is accurate, getting the right treatment is not always easy. Patients need intensive care and support from their family, communities, and healthcare providers. However, as a TB survivor, I can also tell you that this is a disease that can be fought against and won over. I believe we all have a role to play – as corporate leaders, community leaders, philanthropists, and individuals – in making India TB-Free."*

Mr Bachchan also posted his engagement on Facebook and Twitter. The Facebook post received 73,948 likes and 1475 shares. On Twitter, Mr Bachchan posted on his being a TB survivor. He also talked about his association in his blog http://srbachchan.tumblr.com, where he wrote :

"Getting rid of TB is not just a campaign to eradicate the ailment or the disease, it is a cause as social or moral as life itself … Personal tragedies or experiences at times give incentive to dedicate what we learnt during the process to a cause which reaches out to millions .

I have said this before and shall not hesitate to say it again. I am a TB survivor. In the year 2000, as I was about to start my first TV involvement with KBC, I was quite by chance detected to be suffering from tuberculosis. There was unbearable pain in the lower back region and on a random routine examination TB was discovered to have affected my spine. There were black patches that were noticed and I had to go through an entire course of cure for a year, through intake of tablets ... about 8 every day !

In a year's time I was cured, the patches disappeared and I am alive today to talk to you about it. This is not the story. The story is that TB is normally associated with regions and individuals that live in lesser environs, belong to lesser privileged communities, are poor, are existing in congested conditions, are generally suffering from lung disorders , and who in the past were alienated and sent off away from all to sanatoriums, preferably in the mountain regions, in order to receive the purity of nature and its obvious cure.

But in my immodesty I proclaim, that if it could happen to me it could happen to anyone. We who are termed often as the affluent elite, a terminology and expression I absolutely detest and most certainly do not subscribe to, are not supposed to be affected by, of all diseases, tuberculosis!! But there we are .. and there I am .. "

Twitter @SrBachchan on Sep 10, 2015:

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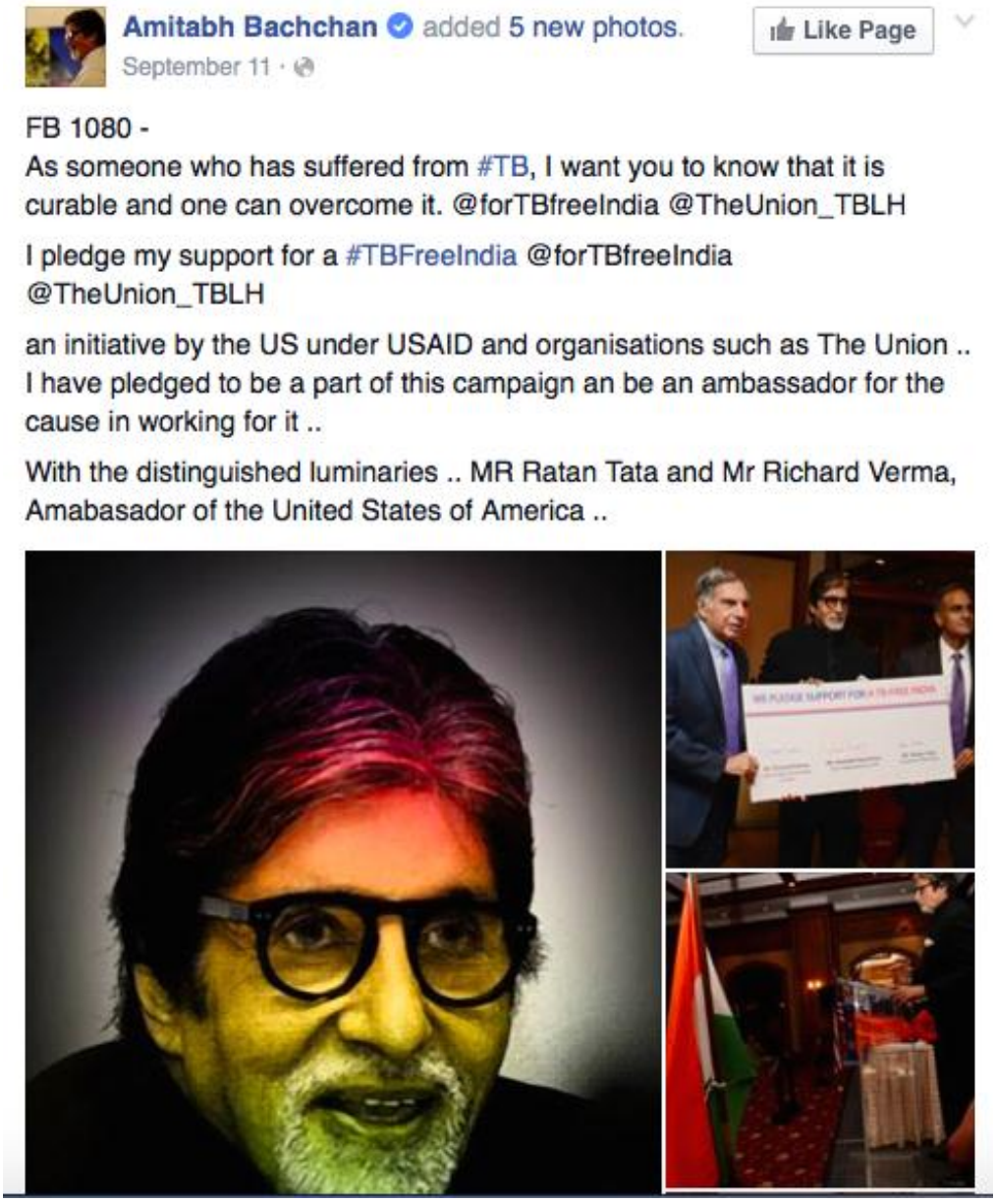

As a result of this engagement, The Challenge TB project now has a very strong patient advocate to represent and support the cause and reach out to all TB patients who have suffered from the disease. A patient centered approach with patient welfare is at the center of the campaign with Mr Bachchan joining the Call to Action for a TB Free India.

Two -year old with Rifampicin resistant TB, undergoing treatment with significant improvement

Fig. 8: The 2 year old boy was diagnosed with Rifampicin resistant TB under the project. Before coming under the project, the child was treated for more than 2 months in private clinics without much relief. However, child's condition has improved within 2 weeks of RNTCP treatment which was initiated immediately after he was diagnosed with rif resistance TB under the project. Currently he is asymptomatic and active.

This is the case of a two-year child from Mustafabad, a town in the northeast district of Delhi. The problem started in 2014, when the child had cough accompanied with fever for more than 10 days. His parents took him to local doctor for treatment. Parents administered the medicines as prescribed by the doctor for almost two months. The child continued the medication without much relief and parents were unaware about the details of medication. During this period, there were no further tests done to diagnose the exact reason of the child's sustained condition.

Failing to see improvement in child's health, one of the relatives suggested the family to consult a child specialist in the Pediatric Department of Kasturba Hospital in Delhi. Doctors at Kasturba Hospital (this is the linked referral facility under the project) after reviewing the child's complete medical history from his relative, immediately suggested chest X-ray, blood investigations and Gastric Aspirate specimen .The reports and samples were sent for diagnosis of TB on Xpert to New Delhi Tuberculosis Center, Pediatric Project Xpert site.

At this lab, smear microscopy was followed by Xpert testing on Gastric aspirate specimen. Smear microscopy result was negative for the child; however, TB with resistance to rifampicin was diagnosed on Xpert. The report was immediately shared with the treating physician at Kasturba Hospital.

As per RNTCP guidelines, the child was admitted for Pre-treatment evaluation and observation of drug tolerance at DR- TB Centre in the Pediatric department of Lok Nayak Hospital, New Delhi. After complete assessment, the child was initiated on 2nd line treatment of DR-TB and was kept under observation for any adverse drug reaction or intolerance to the medicine. The condition of the child improved within two weeks of beginning of treatment and hence was discharged from DR-TB Centre and linked to nearby DOTS Centre for continuation of treatment.

At present, the child comes regularly for follow up checkups to Lok Nayak Hospital. His follow-up X-ray examination has revealed significant improvement. Smear examination of Gastric Aspirate was negative for AFB and CBNAAT was also found Negative.

Currently, the child is continuing treatment and is asymptomatic. The child has shown significant clinical improvement and displays visible a sign of improving health like, the child has gained 4.5 kg weight. Child's father is satisfied with the current treatment of his son.

The parents did not have to pay money for any tests or medicines during the treatment under the project and they completely adhere to the continuation and completion of medical treatment as advised by their doctor.

6. Operations Research

NA – no operations research was conducted in year 1.

7. Key Challenges during Implementation and Actions to Overcome Them

CALL TO ACTION FOR A TB FREE INDIA:

- A major challenge was the unexpected resignation of the first Project Director after 20 days of joining on April date, 2015. This caused delays in activity implementation in Year 1. The New Project Director joined in June, 2015 following which the work plan was finalized with the Central TB Division and activities resumed with full speed in Quarter 4.
- The team established contact with the Central TB Division and the Joint Secretary and shared the Proposal for formation of the Steering Committee. Since this will be a Government order, the Secretariat cannot expedite and is awaiting clearance from the Joint Secretary's office since June 2015. The CTB team has followed up regularly with the Central TB Division and the JS office at all meetings and the delay is due to the JS's heavy travel commitments in the past months.
- The project has to handle the expectations of multiple stakeholders and balance expectations of each with the other.
- The Summit has been deferred to Year 2, tentatively scheduled in March 2016 as the project though launched in April 2015, took off in the last quarter of Year 1 with the full team in place. Finalizing a date for the Summit is proving difficult, as it needs commitments from dignitaries such as the Minister of Health & Family Welfare, Mr. Amitabh Bachchan, Mr. Ratan Tata and the Prime Minster of India.

FIND:

- There was delay in procurement and supply of XpertMTB/Rif cartridges. To address this shortage , GeneXpert cartridges were borrowed from other projects. To date, more than 10,000 cartridges have been acquired on loan.
- PPM activities, including visits to providers and organizing sensitization workshops were kept on hold due to delay in release of funds.
- Engaging with additional private providers was challenging due to multiple reasons viz. Unavailability of providers, odd OPD/ consultation timings, apprehension regarding GeneXpert test results etc.
- Getting regular referrals from the engaged facilities is challenging because of the fear of losing the patient if referred to public sector lab with free diagnostic facility, facilities/small clinics not being adequately equipped, and problems of specimen transportation.

Lessons Learnt/ Next Steps

Call to Action

- Celebrity engagement has led to a lot of interest amongst corporate organisations, civil society and medical professionals and associations and media towards pledging action on TB. While celebrity engagement increases visibility, there is also the need to coordinate dates and plan

events around their availability that may prove difficult if more than one important dignitary is attached to the campaign.

- Flexibility is key to establishing partnerships. Also, important is the inclusion of partner logos and allowing partners to take centre stage at meetings/ consultations. This has helped garner wide support from organizations like IMA, Medanta, GCTA.

Next steps:

- The project plans to hold a Delhi Dialogue towards a TB-Free India as a follow up to the Mumbai Dialogue. This will engage those corporates that are based in Delhi and Gurgaon. The dialogue will be a pitch by the GoI to corporates to join the TB Free India call to action. The event will be a high-level corporate sensitization and engagement platform with India Inc., Government of India, Mr. Amitabh Bachchan, USAID, and Challenge TB

- This will be followed by a sensitization meeting with Parliamentarians on TB. The workshop with 20-25 parliamentarians on TB will be conducted in partnership with Indian Association of Parliamentarians for Population Development (IAPPD). A Research and Academia meet has also been planned with all premier scientific and research institutions in the country (ICMR, NITRD, NTI, CSIR, JNU, TISS) to discuss and deliberate on the role of Research institutions in TB program.

- National CSO & patients meeting will be organized in collaboration with Partnership of TB Care and Control (PTCC) to bring together NGOs and patients in one platform to discuss issues and challenges related to TB patients. Collaborative relations will be explored with American Association of Physicians of Indian Origin (APPAI). An event with Vice Chancellors of Government Universities across India is being planned to discuss on all aspects of TB disease and its implications. There will be a group work chalking out the roadmap for sustained involvement of universities towards the cause of fight against TB.

Call to Action for a TB-Free India SUMMIT

All the above stakeholders that have been engaged in various activities and have pledged support will come together for the Call to Action Summit in March 2016. The event will see high-level commitments / MOUs / Case stories / all outputs from the engagement activities that the project has achieved come together. The event will also be an announcement of the future roadmap and partnerships and projects that the Call to Action has initiated.

FIND:

This is the first initiative wherein upfront access to Xpert MTB/RIF for TB detection exclusively for pediatric population was offered under routine programmatic conditions. Majority of the rifampicin resistant cases diagnosed in the project sites had no past history of TB treatment; however, they were frequently contacts of index TB patients. The project demonstrated great potential for targeted PPM activity to cover maximum pediatric population in a given area. Similarly, it also demonstrated the possibility of establishing rapid specimen transportation mechanisms in view of centralized deployment of Xpert MTB/RIF.

The focus in Year 2 will be increasing involvement of private providers, medical colleges that look after child patients, of larger number of pediatricians, in the existing 4 cities and an additional 5 cities.

Key next step for the coming year is to continue to increase private sector involvement through intensified PPM activity and thereby increasing TB case notification in these four cities by providing upfront Xpert MTB/RIF test to all presumptive pediatric TB cases. Moving forward we would also like to expand project reach to additional five cities of the country. Key learnings from the project have been recently published in PLoS, which will be used to advocate for policy guidance while moving forward with scale-up of this intervention.

Annex I: Year 1 Results on Mandatory Indicators

MANDATORY Indicators				
Please provide data for the following mandatory indicators:				
2.1.2 A current national TB laboratory operational plan exists and is used to prioritize, plan and implement interventions.	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Score as of September 30, 2015	2	N/A	**None**	Developed by the NTP with support from national and international experts
2.2.6 Number and percent of TB reference laboratories (national and intermediate) within the country implementing a TB-specific quality improvement program i.e. Laboratory Quality Management System	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Number and percent as of September 30, 2015	33/33 (100%)	N/A	**None**	100% (33/33) per RNTCP LQMS. National LQMS does not involve use of GLI/SLMTA scoring system. There are 6 NRLs and 27 NRLs. Lab quality control guide line is available at http://tbcindia.nic.in/pdfs/RNTCP%20Lab%20Network%20Guidelines.pdf
2.2.7 Number of GLI-approved TB microscopy network standards met	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Number of standards met as of September 30, 2015	N/A	N/A	**None**	Not Applicable (RNTCP has its own certification)
2.3.1 Percent of bacteriologically confirmed TB cases who are tested for drug resistance with a recorded result.	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**

Percent (new cases), include numerator/denominator	Not Available	N/A	1,253/ 15,347 (8.2%)	Disaggregation by new and previously treated cases are not available
Percent (previously treated cases), include numerator/denominator	Not Available	N/A		Source: WHO Global TB Report 2014
Percent (total cases), include numerator/denominator	34% (248341/724422)	N/A		
3.1.1. Number and percent of cases notified by setting (i.e. private sector, pharmacies, prisons, etc.) and/or population (i.e. gender, children, miners, urban slums, etc.) and/or case finding approach	**National 2014**	**CTB 2014**	**CTB APA 1 investment**	**Additional Information/Comments**
Number and percent	Total TB cases notified in 2014: 1,443,942 - Of total, cases notified by private sector = 106,414 (7%) - Of total, cases notified by public sector outside of RNTCP=9,900 (0.7%) - Number (%) of paediatric cases out of all new cases = 72,307 (6%)	Total Pediatric suspects tested in 2014: 15347 - of Total Pediatric TB cases diagnosed: 1253 (8.2%)	**Limited**	Source: National 2014 data from RNTCP annual report 2015 CTB 2014 data from FIND project report Note: CTB data on all new cases are only children aged below 15 years, as FIND only collect data for children aged below 15 years in their sites in 4 cities.
3.1.4. Number of MDR-TB cases detected	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Total 2014	25652		**Limited**	Source for national APA1 data: National 2014 data from RNTCP annual report 2015 Note: Data on quarterly basis are not currently available
Jan-Mar 2015	U	21		CTB APA1 data is from four cities (project sites in Delhi, Hyderabad, Chennai and Kolkata)
Apr-June 2015	U	41		

Jul-Sept 2015	U	31		
To date in 2015	0	93		
3.2.1. Number and percent of TB cases successfully treated (all forms) by setting (i.e. private sector, pharmacies, prisons, etc.) and/or by population (i.e. gender, children, miners, urban slums, etc.).	**National 2013 cohort**	**CTB 2013 cohort**	**CTB APA 1 investment**	**Additional Information/Comments**
Number and percent of TB cases successfully treated in a calendar year cohort	88.3% (1,084,185/ 1,227,766)	N/A	**None**	Source: RNTCP annual report 2015.
3.2.4. Number of MDR-TB cases initiating second-line treatment	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Total 2014	Total No. of MDR-TB cases initiated treatment in 2014= 24073.	N/A	**None**	Source: National 2014 data from RNTCP annual report 2015. Of the 25,652 MDR-TB cases diagnosed, 24073 were initiated on SLD. Note: quarterly data are not currently available. As quarterly data is not available in public domain. Though CTB is in process to obtain data though Government in quarterly basis and once it is available will be shared with PMU
Jan-Mar 2015	U	16		
Apr-June 2015	U	32		
Jul-Sept 2015	U	23		
To date in 2015	0	71		
3.2.7. Number and percent of MDR-TB cases successfully	**National 2012 cohort**	**CTB 2012 cohort**	**CTB APA 1 investment**	**Additional Information/Comments**

treated				
Number and percent of MDR-TB cases successfully treated in a calendar year cohort	48% (3,486/7,289)	N/A	**None**	Source: RNTCP annual report 2015.
5.2.3. Number and % of health care workers diagnosed with TB during reporting period	**National 2014**	**CTB 2014**	**CTB APA 1 investment**	**Additional Information/Comments**
Number and percent reported annually	U	N/A	**None**	NTP does not collect or report # of health care workers diagnosed with TB. Therefore, TB among HCWs is not available.
6.1.11. Number of children under the age of 5 years who initiate IPT	**National 2014**	**CTB 2014**	**CTB APA 1 investment**	**Additional Information/Comments**
Number and percent reported annually	U	N/A	**None**	In India, data on children aged under 5 years who initiated IPT is not collected.
7.2.3. % of activity budget covered by private sector cost share, by specific activity	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Percent as of September 30, 2015 (include numerator/denominator)	N/A	N/A	**None**	During Y1, no activities were conducted in partnership with private sector under CTB
8.1.3. Status of National Stop TB Partnerships	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Score as of September 30, 2015	0	N/A	**None**	In India, currently there is no existence of such national level partnership on Stop TB. However, there are several forums on TB like PTCC, National Forum on TB and also several technical working groups under Central TB Division (CTD) are working on different technical areas like M&E, Laboratory etc. Therefore, all responses on the checklist provided are 'NO' and hence score is '0'.

8.1.4. % of local partners' operating budget covered by diverse non-USG funding sources	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Percent as of September 30, 2015 (include numerator/denominator)	N/A	N/A	**None**	During APA 1, CTB did not work with any local partner and hence reporting on this indicator is not applicable
8.2.1. Global Fund grant rating	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Score as of September 30, 2015	B1	N/A	**None**	**Latest rating is A1, though the average is B1 since 2010. Details available in http://www.aidspan.org/country/108**
9.1.1. Number of stock outs of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Number as of September 30, 2015	Data not available (not published in RNTCP reports)	N/A	**None**	**Data not available (not published in RNTCP reports)**
10.1.4. Status of electronic recording and reporting system	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Score as of September 30, 2015	3	N/A	**None**	**In India, it is known as e- Nikshaya**
10.2.1. Standards and benchmarks to certify surveillance systems and vital registration for direct measurement of TB burden	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**

have been implemented				
Yes or No as of September 30, 2015	No (RNTCP has no plans for certification of surveillance system)	N/A	**None**	**RNTCP has no plans for certification of surveillance system**
10.2.6. % of operations research project funding provided to local partner (provide % for each OR project)	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Percent as of September 30, 2015 (include numerator/denominator)	N/A	N/A	**None**	**No Operation Research was planned under CTB during APA 1 and there was no local partner involved with CTB in Y1**
10.2.7. Operational research findings are used to change policy or practices (ex, change guidelines or implementation approach)	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Yes or No as of September 30, 2015	N/A	N/A	**None**	**No Operation Research was planned during Y1 and hence this indicator is not applicable for CTB**
11.1.3. Number of health care workers trained, by gender and technical are	**CTB APA 1**		**CTB APA 1 investment**	**Additional Information/Comments**
	# trained males APA 1	**# trained females APA 1**	**Total # trained in APA 1**	**Total # planned trainees in APA 1**
1. Enabling environment				

2. Comprehensive, high quality diagnostics				
3. Patient-centered care and treatment				
4. Targeted screening for active TB				
5. Infection control				
6. Management of latent TB infection				
7. Political commitment and leadership				
8. Comprehensive partnerships and informed community involvement				
9. Drug and commodity management systems				
10. Quality data, surveillance and M&E				
11. Human resource development				
Other (explain)				
Grand Total	**0**	**0**		**0**
11.1.5. % of USAID TB funding directed to local partners	**National APA 1**	**CTB APA 1**	**CTB APA 1 investment**	**Additional Information/Comments**
Percent as of September 30, 2015 (include numerator/denominator)	N/A	N/A	**None**	**During APA1, CTB did not have any local partner to carry out any activity, and hence there was no investment to local partner from the funding received**

Annex II: Status of EMMP activities

Year 1 Mitigation Measures	Status of Mitigation Measures	Outstanding issues to address in Year 2	Additional Remarks
Store, use and dispose of used cartridges according to manufacturer's and RNTCP guidelines. All infection material and used cartridges are first autoclaved in the respective sites and then disposed as infectious material. This project is fully integrated and is being implemented under RNTCP as per national guidelines.	Biomedical waste disposal is handled by RNTCP authorities of the institution where the CBNAAT lab has been established. All infectious material including sputum cups are autoclaved by RNTCP lab staff before handing over to biomedical waste management agency, as per institution and RNTCP norms. All the four Xpert labs are situated at national or intermediate reference lab level and are equipped with storage of cartridges as per manufacture's recommendations All the used Xpert cartridges are first autoclaved in the respective sites and then disposed as infectious material.	No issues	Biomedical waste management is handled by institutional authorities as per national norms under RNTCP
Transportation of sputum and other specimens for TB testing as per the existing RNTCP guidelines All other types of specimen are	Referral facilities are linked with sputum transportation mechanisms as per existing RNTCP guidelines. Yes, specimens are collected by trained personnel/treating	No issues	Turnaround time is being monitored regularly to address any deviation in transportation mechanism Field staff regularly monitor specimen transportation and

Year 1 Mitigation Measures	Status of Mitigation Measures	Outstanding issues to address in Year 2	Additional Remarks
collected by already trained treating physicians. While earlier these specimens were being subjected to histo-pathological tests only, these are now being tested on Xpert. All specimens are being collected in sterile containers, which are being provided under the project. City specific specimen transportation mechanisms are in placed Transportation costs are covered under the project at a fixed rate per city. Protocol for testing different types of specimen is in place	physician All the specimens are subjected to Xpert as a 1st test of preference Falcon tubes are procured and supplied to each sites, which are used for specimen collection across all the linked facilities Each referral facility is linked though these mechanism Specimen testing protocol is in place		related issues while project team during their monitoring visits, monitor each aspect of specimen transportation, including duration, cost, distance and provides solution in case of issues
Piloting of use of nebulizers at a few sites and check the feasibility of colleting induced sputum	Pending	This activity will be piloted in the coming period of the project	